

**PCT**WORLD INTELLECTUAL PROPERTY ORGANIZATION  
International Bureau

## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>6</sup> :</b> <b>C07K 16/24, 16/28</b>	<b>A1</b>	<b>(11) International Publication Number:</b> <b>WO 00/09561</b> <b>(43) International Publication Date:</b> 24 February 2000 (24.02.00)
<b>(21) International Application Number:</b> PCT/AU99/00659 <b>(22) International Filing Date:</b> 13 August 1999 (13.08.99) <b>(30) Priority Data:</b> PP 5251 13 August 1998 (13.08.98) AU <b>(71) Applicant (for all designated States except US):</b> MEDVET SCIENCE PTY. LTD. [AU/AU]; IMVS Building, Level 3 South Wing, Frome Road, Adelaide, S.A. 5000 (AU). <b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> LOPEZ, Angel [AU/AU]; Hanson Centre for Cancer Research, Institute of Medical and Veterinary Science, Division of Human Immunology, Frome Road, Adelaide, S.A. 5000 (AU). D'ANDREA, Richard [AU/AU]; Hanson Centre for Cancer Research, Institute of Medical and Veterinary Science, Division of Human Immunology, Frome Road, Adelaide, S.A. 5000 (AU). <b>(74) Agent:</b> A.P.T. PATENT & TRADE MARK ATTORNEYS; G.P.O. Box 772, Adelaide, S.A. 5001 (AU).		<b>(81) Designated States:</b> AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.</i>
<b>(54) Title:</b> MONOCLONAL ANTIBODY INHIBITOR OF GM-CSF, IL-3, IL-5 AND OTHER CYTOKINES, AND USES THEREOF <b>(57) Abstract</b> <p>A method of isolating a monoclonal antibody capable of inhibiting any one of IL-3, GM-CSF and IL-5 binding to the common receptor <math>\beta_c</math>, or a monoclonal antibody capable of inhibiting the cytokines binding to a receptor analogous to <math>\beta_c</math>. The method includes the steps of immunising an animal with a cytokine receptor or portion of a cytokine containing the critical binding site which portion includes the extracellular domain 4 or analogous domain in the analogous common receptor or part thereof. Antibodies producing cells from the animal are then isolated and fused with a myeloma cell line and then screened for a cell line that produces an antibody of the desired type. A monoclonal antibody, or fragments thereof capable of inhibiting the binding of the cytokines IL-3, GM-CSF and IL-5 to the <math>\beta_c</math> receptor, and a hybridoma cell line producing the antibody are also claimed.</p>		